

Patent Claims

1. A heat exchanger having tubes and at least one header box, the header box having at least one tube plate, the tube plate having a substantially planar central region with tube openings, into which the tubes can be fitted, and at least one side region which is rounded or angled off with respect to the central region, characterized in that at least one tube opening extends to the at least one side region or into the at least one side region.
2. The heat exchanger as claimed in claim 1, characterized in that the at least one side region has at least one planar subregion.
3. The heat exchanger as claimed in claim 1 or 2, characterized in that the at least one side region has a rounded portion with an approximately constant radius of curvature.
4. The heat exchanger as claimed in claim 3, characterized in that the at least one side region has a plurality of rounded portions with different radii of curvature.
5. The heat exchanger as claimed in one of claims 1 to 4, characterized in that the at least one side region is convex in form.
6. The heat exchanger as claimed in one of claims 1 to 5, characterized in that the at least one tube opening is delimited by a rim which faces into the at least one header box.
7. The heat exchanger as claimed in one of claims 1 to 5, characterized in that the at least one tube

opening is delimited by a rim which faces out of the at least one header box.

5 8. The heat exchanger as claimed in claim 6 or 7, characterized in that the rim is lower at or in the at least one side region of the tube plate than in the central region of the tube plate.

10 9. A charge-air cooler, in particular for a motor vehicle, characterized by the features of one of the preceding claims.